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10/581,474	06/01/2006	Lauren Tonge	DC5190 PCT1	3837

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EXAMINER	
LOEWE, ROBERT S	

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
03/28/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents.admin@dowcorning.com

Office Action Summary	Application No.	Applicant(s)	
	10/581,474	TONGE, LAUREN	
	Examiner	Art Unit	
	ROBERT LOEWE	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/1/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 7 is objected to because of the following informalities: "at least one organofunctional groups selected" is incorrect and should be changed to --at least one organofunctional group selected--. Appropriate correction is required.

Claim Interpretation

Instant claim 1 recites a mandatory curing agent [component (C)] and an optional catalyst [component (F)]. It is the position of the Examiner that a free radical initiator/organic peroxide catalyst present in a composition which discloses the other mandatory ingredients of instant claim 1 would effectively satisfy the limitations of both instant claims 5 and 8. There is nothing to suggest in instant claim 1 that two distinct/different catalysts be added. A cure agent and a catalyst can be one in the same; therefore a free radical initiator/organic peroxide crosslinking system inherently serves as both a curing agent and a catalyst [components (C) and (F)].

International Search Report

US Pat. 6,015,858, cited on the international search report as an "X" reference, does not teach the same order of mixing of instant claim 1 but is relied upon as a "Y" reference below.

US Pat. 4,942,202, cited on the international search report as an "X" reference, does not teach the same order of mixing of instant claim 1 but is relied upon as a "Y" reference below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gornowicz (US Pat. 6,015,858, cited on the international search report).

Claims 1-8 and 11: Gornowicz teaches a method of preparing a fluoroplastic elastomeric base composition by (I) reacting a fluorocarbon resin/fluorocarbon elastomer [component (D)], such as a copolymer of vinylidene difluoride and hexafluoropropylene (3:52-64), a grafting agent/compatibilizer [component (E)], such as triallyl isocyanurate [component (E^1)] (4:20-25), and a radical initiator [component (F)], such as an organic peroxide (5:7-40) to form a modified fluorocarbon resin/fluoroplastic followed by (II) mixing the modified fluorocarbon resin/fluoroplastic with a silicone base composition [component (A)] comprising a diorganopolysiloxane having at least two alkenyl radicals [component (A')] (5:41-6:61) and a reinforcing filler [component (A")] (6:62-7:27), an organohydrogenpolysiloxane crosslinking agent [component (B)] (7:28-8:34), and a platinum catalyst curing agent [component (C)] (8:35-58), followed by dynamic vulcanization (abstract). Gornowicz further teaches that amount of fluorocarbon resin/fluoroplastic is from 40 to 95% based on the total weight% of the other components. Given that the silicone base resin is a major component in the composition, it

inherently follows that Gornowicz satisfies the ratio of fluorocarbon resin/fluoroplastic to silicone base of instant claim 1.

Gornowicz does not explicitly teach that ingredients (A) through (C) are first mixed prior to addition with ingredients (D) through (F) as is presented in instant claim 1. However, the courts have stated that selection of any order of performing process steps is ***prima facie*** obvious in the absence of new or unexpected results (*In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946)) and *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.)

Gornowicz teaches the presence of both a platinum-based hydrosilation catalyst and a free radical peroxide initiator. It follows that the free radical peroxide initiator functions as both a cure agent and a catalyst [i.e., as both components (C) and (F)].

It is noted by the Examiner that the fluoropolymers [component (D)] taught by Gornowicz are required to have a glass transition temperature **above** room temperature while the fluoropolymers of the instant application are required to have a glass transition temperature **below** room temperature. However, there is nothing claimed which requires this limitation to be present.

Claim 9: Gornowicz further teaches that the mixing and curing steps are conducted in a twin-screw extruder (claim 10).

Claims 12 and 13: Gornowicz further teaches an article of manufacture comprising the fluoroplastic of instant claim 11 (10:38-47).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gornowicz (US Pat. 6,015,858), as applied to instant claims 1 and 9 above.

Gornowicz teaches a method of preparing a fluoroplastic elastomeric base composition of instant claim 1, as described above. Gornowicz further teaches that the mixing and curing steps are conducted in a twin-screw extruder of instant claim 9, as described above. However, Gornowicz does not explicitly teach that the residence time be less than two minutes. However, the residence time of a composition in an extruder is a result-effective variable. The courts have stated that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (i.e., does not require undue experimentation). *In re Aller*, 105 USPQ 233. "Discovering an optimum value of a result effective variable involves only routine skill in the art." *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Note too MPEP 2144.05 which states that "differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical". In the instant case, a person having ordinary skill in the art would have been motivated to adjust the residence time to be less than 2 minutes to allow for the most economical means (i.e., the highest throughput) of processing curable compositions, which would inherently mean adjusting the residence time to as low as possible without detrimentally affecting the materials' physical properties.

Claims 1, 2, 5, 6, 8 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zama et al. (US Pat. 4,942,202, cited on the international search report).

Claims 1, 2, 5, 6, 8, 11 and 12: Zama et al. teaches a method to prepare silicone rubber/fluorocarbon elastomer blends by mixing (A) a silicone base composition which is comprised of (A') a polymethylvinylsiloxane and (A") a reinforcing silica filler with a fluorocarbon elastomer such as a vinylidene fluoride/hexafluoropropylene copolymer and an organic peroxide free radical initiator catalyst followed by reaction of the blend with the organic peroxide in a Banbury mixer (8:27-59). Zama et al. further teaches that the weight ratio of the fluorocarbon elastomer (D) to silicone base (A) is, for example 70:30, which falls within the range of instant claim 1 (Table 1).

Zama et al. does not explicitly teach that ingredients (A) through (C) are first mixed prior to addition with ingredients (D) through (F) as is presented in instant claim 1. However, the courts have stated that selection of any order of performing process steps is ***prima facie*** obvious in the absence of new or unexpected results (*In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946)) and *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.)

Claim 13: Zama et al. further teaches articles of manufacture comprising the cured fluorocarbon elastomer of instant claim 12 (17:66-19:2).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zama et al. (US Pat. 4,942,202), as applied to claim 1 above, in view of Stella (US Pat. 4,882,386, cited on the PTO-892 form).

Zama et al. teaches a method of preparing a fluoroplastic composition of instant claim 1, as described above. Zama et al. explicitly teaches that the mixing steps can be performed using

an extruder (5:51-52). Zama et al. does not explicitly teach that steps (II) and (III) are both done using an extruder. However, Stella et al. teaches a method of mixing and curing a rubber composition using an extruder (8:5-10). Zama et al. and Stella et al. are combinable because they are from the same field of endeavor, namely, processing of curable rubber compositions. At the time of the invention, a person having ordinary skill in the art would have found it obvious to perform both mixing and curing steps using an extruder in the process of Zama et al. and would have been motivated to do so because Stella teaches that such processes allows for a continuous manufacture of cured silicone rubber (8:19-31).

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zama et al. (US Pat. 4,942,202) as applied to claim 1 above, in view of Tzoganakis et al. (US Pat. 6,114,445, cited on the PTO-892 form).

Zama et al. teaches a method of preparing a fluoroplastic composition of instant claim 1, as described above. Zama et al. explicitly teaches that the mixing steps can be performed using an extruder (5:51-52). Zama et al. does not explicitly teach that both steps (II) and (III) can be performed using an extruder. However, Tzoganakis et al. teaches a method of mixing and curing/crosslinking a rubber composition using an extruder (abstract). Tzoganakis et al. further teaches in the embodiments presented therein that the residence times of extrusion curing are significantly shorter (2-8 min) than either a hot press or a batch mixer (table 1). Zama et al. and Tzoganakis et al. are combinable because they are from the same field of endeavor, namely, the extrusion of compositions which undergo hydrosilation reactions. At the time of the invention, a person having ordinary skill in the art would have found it obvious to perform both mixing and

curing steps using an extruder in the process of Zama et al. and would have been motivated to do so because Tzoganakis et al. teaches the many advantages of reactive extrusion such as reduced time, labor, energy and equipment costs (1:51-60). Last, a person having ordinary skill in the art would appreciate that the residence times of the continuous process should be kept to a minimum for a variety of reasons, including increased throughput.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-8 and 11-13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 8-14, 18 and 20-22 of U.S. Patent No. 7,173,092. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application and US Pat. 7,173,092 differ only in the order of

mixing of components (A) through (F). However, the courts have stated that selection of any order of performing process steps is ***prima facie*** obvious in the absence of new or unexpected results (*In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946)) and *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.)

Relevant Art Cited

The prior art made of record and not relied upon but is considered pertinent to applicants disclosure can be found on the attached PTO-892 form.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571) 270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-13021302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./
Examiner, Art Unit 1796
4-Mar-08

/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796